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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,974	01/11/2001	Thomas Jeffrey Walker	41PR-7777 (GEN-0210)	9630
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CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			EXAMINER MANOHARAN, VIRGINIA	
			ART UNIT	PAPER NUMBER
			1764	
DATE MAILED: 11/03/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/758,974

Applicant(s)

WALKER, THOMAS JEFFREY

Examiner

Virginia Manoharan

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 25-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 25-28 and 30-32 is/are rejected.
- 7) ☒ Claim(s) 29 and 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

Claims 1-11 and 25-33 are objected to because of the following informalities:

The following claimed languages lack antecedent support

- 1) "the heated brine" in claim 1 (as it could also mean being cooled when passing through a heat exchanger);
- 2) "the filter" in claim 27;
- 3) "the tank" in claim 30; and
- 4) "during reintroduction of the pressurized, heated brine into the flash tank." recited in claim 1. The initial introduction has not been recited in the claim.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-7 and 9-11, 25-28 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/21631 in view of EP 0098038.

The above references are applied for the same combined reasons as set forth at the paragraph bridging pages 3-4 of the previous Office Action.

Note e.g., page 5, lines 14-17 and lines 29-30 through page 6, lines 1-2 of WO '631 for the claimed "decreasing the pressure of the heated brine during re-introduction of the pressurized, heated brine into the flash tank by an amount effective to transform at least a portion of water from the brine from liquid to steam..."

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/21631 in view of EP 0098038 as applied to claims 1-3, 5-7, 9-11, 25-28 and 30-32, above, and further in view of Beasley et al (5,389,208).

Beasley is applied for the same reasons as set forth at paragraph bridging pages 4&5 of the previous Office Action.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/21631 in view of EP 0098038 as applied to claims 1-3, 5-7 & 9-11, 25-28 and 31-32 above, and further in view of Kreisler (4,767,498).

Kreisler is applied for the same reasons as set forth at the first and second full paragraphs of the previous Office Action.

Claims 29 & 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's arguments filed July 13, 2004 have been fully considered but they are not persuasive. Applicants' reference to page 15, lines 14-25 of Nazzer (WO 00/21631) is not considered well-taken.

Obviously, Nazzer's feedstream would read on the claimed brine, since Nazzer's feedstream can pass through the pipe work at the bottom exit of the flash separator; and like the claimed invention, none become solids or non-flowing at the pressure and temperature conditions that exist in the flash separator solid drum or recycle heater. See e.g., claims 11-14 at pages 19-20 of Nazzer. Note also claim 6 at page 18 wherein salt of "sulphite or bisulphate" is introduced into the feedstream. See further page 12,

lines 10-14, involving the extraction of chlorides and other salts. It is noteworthy that the above is directed more to material-in process & not to the process itself to which the claims are directed. Nonetheless, as recognized by applicants, Morgan (EP 0098038) teaches the evaporation of water. Applicants' further arguments that "...as with Nazzer, Morgan at least fails to teach decreasing the pressure of the heated brine during re-introduction of the pressurized, heated brine by an amount effective to transform at least a portion of water from the brine from liquid to steam as is taught and claimed in the present application. ... Additionally, with respect to the suggested combination by the Office Action, since Nazzer teaches the recycle being a liquid, and the flashing is upon contact of the hot recycle liquor with the feed stream, there is no motivation and no expectation of success to heat the recycle liquor to temperatures of about 220°F to about 230°F, as is claimed in the present application..." are not persuasive of patentability for the following reasons:

However, Nazzer, disclosure at page 5, lines 14-17 of "...it is also desirable... to flash off unwanted vapors and separate out unwanted non-miscible liquids from the feedstream 2 before it enters the flash separator 3; and the further disclosure at page 5, lines 29-30 through page 6, lines 1-2 of "...the feedstream and recycle liquor 6 may be mixed immediately upstream of the separator 3..." would at least be suggestive of the above argued..." "decreasing the pressure of the heated brine during re-introduction of the pressurized, heated brine into the flash tank by an amount effective to transform at least a portion of water from the brine from liquid to steam..."

The test of obviousness should not be limited to the specific features shown by the references, but should be into the concepts fairly contained therein, and whether those concepts would suggest to one skilled in the art the modifications called for by the claims..” In re Bozek, 163 USPQ 545; In re Beckum, 169 USPQ 47.

Moreover and contrary to applicants’ assertion, as indicated above and at page 17, lines 27-30 through page 18, lines 1-4 and page 19, lines 6-8, the heating of the recycle liquor of the prior art to the argued temperature would reasonably be expected as the liquor also flashes as in the claimed invention prior its entrance to the flash tank. Nonetheless, the above argued temperature is not an unobvious subject matter nor is it evidence of criticality in the art as it is taught by Morgan, indicated in the previous Office Action. Furthermore, the tangential nozzle of the prior art may not be structurally the same (in the absence of defining the fog nozzle in terms of structure) as the claimed fog nozzle but they are equivalent in function. At least in terms of inducing flashing of the recycle fluid upon contact & drop in pressure. Beside, Nazzer is not limited to the tangential nozzle. See e.g., page 13, lines 20-23. In addition, Beasley and Kreisler were cited for reasons of record, not for reasons as argued i.e., to disclose the step of “...decreasing the pressure..” Beasley, kreisler and Nazzer, like the claimed invention, involves at least with fluid concentration by evaporation.

Thus, in the absence of anything which may be “new” or “unexpected result,” a prima facie case of obviousness has been established by the art and has not been rebutted.

Unexpected results must be established by factual evidence. Mere arguments or conclusory statements in the specification, applicants' amendments, or the Brief do not suffice. In re Lindner, 457 F.2d 506, 508, 173 USPQ 356, 358 (CCPA 1972). In re Wood, 582, F.2d 638, 642, 199 USPQ 137, 140 (CCPA 1978).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a) Hartman et al discloses a fog nozzle.
- b) Williamson discloses a multistage flash evaporation

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia Manoharan whose telephone number is (571) 272-1450. The examiner can normally be reached on Tuesday-Friday from 7:30 a.m to 6:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola, can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Manoharan/tgd

November 1, 2004

*Virginia Manoharan*  
11/2/04